

ABSTRACT

The present invention provides an ozone generating system that combines single-use elements or segments with an extended use fixture that is used to activate the single-use elements. One embodiment of the invention consists of a strip of proton exchange membrane (PEM) having the ozone producing catalyst applied directly onto one side of membrane. Optionally, the application of this catalyst may be divided into segments or patches, wherein each segment represents the limited-use portion of the ozone generator. Each segment may be advanced into a fixture that provides the balance of the electrochemical system required for operation of the ozone generator. This balance of system may include additional subsystems, with a power supply, water source, electrical contacts, electronic controllers, sensors and feedback components, being typical examples.